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EXAMINER

TIV, BACKHEAN

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2151

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8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,401

Applicant(s)

BRIGHT ET AL.

Examiner

Backhean Tiv

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4,5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Claims 1-71 are pending in this Office Action.

Claim Objections

Claim 11 is objected to because of the following informalities:

Claim 11 reads "11 The", there should be a period after 11 to read "11.The".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3,16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the at least one query" in lines 23-24. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "infrastructure device" in line 27. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2151

1 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
2 forth in section 102 of this title, if the differences between the subject matter sought to be patented and
3 the prior art are such that the subject matter as a whole would have been obvious at the time the
4 invention was made to a person having ordinary skill in the art to which said subject matter pertains.
5 Patentability shall not be negated by the manner in which the invention was made.
6

7 Claims 1-18, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable
8 over WO 00/74409 issued to Larson in view of WO 00/79827 issued to Lamb.
9

10 As per claim 1, Larson teaches a multiple-protocol home location register(page 2,
11 line 13) comprising:

12 a receiver for receiving, from a requesting network of at least two
13 networks, a network request according to one of at least two network
14 protocols(page 3, lines 13-17);

15 However Larson does not explicitly teach

16 a processor, wherein the processor is arranged and constructed to
17 generate network messages according to the at least two network
18 protocols and to process the network request to obtain information
19 requested by the network request;
20 a transmitter, operably coupled to the processor, for relaying the
21 requested information to at least one of the requesting network and a
22 destination network.

23 Lamb teaches

24 a processor, wherein the processor is arranged and constructed to
25 generate network messages according to the at least two network

1 protocols and to process the network request to obtain information
2 requested by the network request(page 6, lines 13-32);
3 a transmitter, operably coupled to the processor, for relaying the
4 requested information to at least one of the requesting network and a
5 destination network(page 6, lines 21-32).

6 Therefore it would have been obvious at the time of the invention to modify the
7 system of Larson to explicitly add a processor, wherein the processor is arranged and
8 constructed to generate network messages according to the at least two network
9 protocols and to process the network request to obtain information requested by the
10 network request; a transmitter, operably coupled to the processor, for relaying the
11 requested information to at least one of the requesting network and a destination
12 network as taught by Lamb in order to provide seamless, wireless telecommunication
13 services to customers that move between disparate networks(page 3, lines 18-19).

14 As per claim 2, the multiple-protocol home location register of claim 1, wherein
15 the processor is further arranged and constructed to translate messages according to
16 the at least two network protocols(Larson, page 2, lines 21-25).

17 As per claim 3, the multiple-protocol home location register of claim 1, wherein
18 the at least one query is generated in response to a communication device request to
19 communicate with a serving network(Lamb, page 6, lines 21-25).

20 As per claim 4, the multiple-protocol home location register of claim 1, wherein
21 the processor is further arranged and constructed to send a profile for a communication

1 device to a serving network and to format the profile according to the serving network's
2 protocol(Lamb, page 6, lines 23-28).

3 As per claim 5, a method comprising the steps of:

4 receiving, by a multiple-protocol home location register, a network request
5 from a requesting network of at least two requesting networks, wherein the
6 network request is composed according to one of at least two network
7 protocols(Larson, page 3, lines 13-17);
8 processing the network request to obtain information requested by the
9 network request(Lamb, page 6, lines13-32);
10 generating at least one network message according to at least one of the
11 at least two network protocols and sending the at least one network
12 message to at least one network supporting the at least one of the at least
13 two network protocols(Lamb, page 6, lines 13-32);
14 relaying the requested information to a destination network(Lamb, page 6,
15 lines 13-32).

16 As per claim 6, the method of claim 5, wherein the step of processing comprises
17 the step of translating the network request(Larson, page 2, lines 21-25).

18 As per claim 7, the method of claim 5, wherein the step of processing comprises
19 the step of converting a Location Request message to a Provide Roaming Number
20 message(Lamb, page 5, lines 28-30).

1 As per claim 8, the method of claim 5, wherein the step of processing comprises
2 the step of converting a Send Routing Information message to a Routing Request
3 message(Lamb, Fig.5a-5c).

4 As per claim 9, the method of claim 5, wherein the step of processing comprises
5 the step of distributing, throughout the multiple-protocol home location register,
6 subscriber information for a plurality of communication devices(Lamb, page 14, lines 25-
7 27).

8 As per claim 10, the method of claim 5, wherein the step of processing comprises
9 the step of determining and storing a protocol type and an address for an infrastructure
10 device(Lamb, page 6, lines13-32).

11 As per claim 11, the method of claim 10, wherein the infrastructure device is a
12 gateway mobile switching center(Lamb, page1, lines 21-23).

13 As per claim 12, the method of claim 5, wherein the step of processing comprises
14 the step of determining and storing a protocol type and an address for a communication
15 device(Lamb, page 6, lines 13-32).

16 As per claim 13, the method of claim 12, wherein the step of processing
17 comprises the step of determining and storing a protocol type and an address for a
18 serving network for the communication device(Lamb, page 6, lines 13-32).

19 As per claim 14, the method of claim 5, wherein the multiple-protocol home
20 location register receives a network request, regarding a communication device, from
21 an infrastructure device, regardless of the communication device's native mode
22 protocol(Lamb, page 6, lines 13-32).

1 As per claim 15, the method of claim 5, further comprising the step of detecting a
2 protocol type for an infrastructure device, and when the protocol type for the
3 infrastructure device is not a first network protocol, communicating through a mediation
4 device to a home location register of the protocol type for the infrastructure
5 device(Lamb, Fig.5a-5c).

6 As per claim 16, the method of claim 5, wherein any infrastructure device is at
7 least one of a terminating mobile switching center, a visited mobile switching center, a
8 gateway mobile switching center, a packet gateway, and an internet protocol
9 gateway(Lamb, page 1, lines 20-22).

10 As per claim 17, the method of claim 5, further comprising the step of storing call
11 forwarding information such that processing for call forwarded communications takes
12 place between a mediation device in the multiple-protocol home location register and a
13 terminating mobile switching center(Larson, Fig.3).

14 As per claim 18, the method of claim 5, further comprising the step of issuing an
15 instruction to a previous mobile switching center to delete a visited location register for a
16 communication device(Lamb, page 7, lines 1-5).

17 As per claim 22, the method of claim 5, wherein the step of processing comprises
18 the steps of routing a pre-paid call, originating according to a first protocol of the at least
19 two network protocols, to an infrastructure device operating according to a second
20 protocol of the at least two network protocols and handling the pre-paid call according to
21 normal call processing procedures for the second protocol(Lamb, page 1, line 21-page
22 2, line 32).

1 As per claim 23, the method of claim 5, wherein any infrastructure device is one
2 of a terminating mobile switching center, a visited mobile switching center, a gateway
3 mobile switching center, a packet gateway, and an internet protocol gateway(Lamb,
4 Figs 1-7c).

5 As per claim 24, the method of claim 5, wherein the destination network is
6 determined by a location for a communication device associated with the network
7 request(Lamb, page 11, line 1-10).

8
9 Claims 19,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO
10 00/74409 issued to Larson in view of WO 00/79827 issued to Lamb in further view of
11 US Patent 6,556,820 issued to Le et al.(Le).

12
13 Larson in view of Lamb teaches all the limitations of claim 5, however does not
14 explicitly teach as per claim 19, the method of claim 5, wherein the step of processing
15 comprises the step of storing an identification of an infrastructure device that terminates
16 a call.

17 Le teaches wherein the step of processing comprises the step of storing an
18 identification of an infrastructure device that terminates a call(col.9,lines 35-40).

19 Therefore it would have been obvious at the time of the invention to modify the
20 method of Larson in view of Lamb to add wherein the step of processing comprises the
21 step of storing an identification of an infrastructure device that terminates a call as
22 taught by Le in order to provide mobility management(col.3,lines 2-4).

1 As per claim 20, the method of claim 5, wherein the step of processing comprises
2 the step of determining whether a communication device supports multiple-mode
3 operation(Le, col.10, lines 60-67).

4
5 Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
6 00/74409 issued to Larson in view of WO 00/79827 issued to Lamb in further view of
7 US Patent 5,845,982 issued to Chambers et al.(Chambers).

8
9 Larson in view of Lamb teaches all the limitations of claim 5, however does not
10 explicitly teaches 21, the method of claim 5, wherein the step of processing comprises
11 the step of converting a short messaging service message from a first network protocol
12 to a second network protocol.

13 Chambers teaches wherein the step of processing comprises the step of
14 converting a short messaging service message from a first network protocol to a second
15 network protocol(col.11, lines 59-60).

16 Therefore it would have been obvious at the time of the invention to modify the
17 method of Larson in view of Lamb to add wherein the step of processing comprises the
18 step of converting a short messaging service message from a first network protocol to a
19 second network protocol as taught by Chambers in order to provide a communication
20 system with a structural architecture that provides greater flexibility in terms of MSISDN
21 and IMSI management(col.3, lines 10-15).

22

1 Claims 25-43,45-53,55-61,68-70 are rejected under 35 U.S.C. 103(a) as being
2 unpatentable over WO 00/79827 issued to Lamb in view of US Patent 5,933,784 issued
3 to Gallagher et al.(Gallagher).

4
5 As per claim 25, Lamb teaches a multiple-protocol home location register (HLR)
6 comprising:

7 a mediation device, operably coupled to the first HLR and the second
8 HLR, wherein the mediation device is arranged and constructed to
9 generate network messages according to the first network protocol and
10 the second network(protocol(page 6, lines 13-31);
11 protocol, such that the multiple-protocol HLR provides HLR capability for a
12 plurality of communication devices utilizing any of the first network
13 protocol and the second network protocol(page 2, line 13).

14 Lamb however does not explicitly teach a first HLR arranged and constructed to
15 provide a first network protocol; a second HLR arranged and constructed to provide a
16 second network protocol.

17 Gallagher teaches a first HLR arranged and constructed to provide a first network
18 protocol(Fig.1, element 110A, col. 5, lines 5-41); a second HLR arranged and
19 constructed to provide a second network protocol(Fig.1, element 110B, col.5, lines 5-
20 41).

21 Therefore it would have been obvious at the time of the invention to modify the
22 system of Lamb to explicitly add a first HLR arranged and constructed to provide a first

1 network protocol and a second HLR arranged and constructed to provide a second
2 network protocol as taught by Gallagher in order to enable two or more communication
3 system, each supporting ad different and possible incompatible signaling protocol to
4 communicate with each other (col.3, lines 46-50).

5 As per claim 26, the multiple-protocol HLR of claim 25, wherein the mediation
6 device is further arranged and constructed to translate messages between the first
7 network protocol and the second network protocol(Lamb, page 7, line 20-page 8 line
8 14).

9 As per claim 27, the multiple-protocol HLR of claim 25, wherein the mediation
10 device is arranged and constructed to convert a Provide Roaming Number message to
11 a Location Request message(Lamb, page 5, line32-page 6, line 2).

12 As per claim 28, the multiple-protocol HLR of claim 25, wherein the mediation
13 device is arranged and constructed to convert a Routing Request message to a Send
14 Routing Information message(Lamb, Fig.5a-5c)..

15 As per claim 29, the multiple-protocol HLR of claim 25, further comprising a
16 provisioning gateway, operably coupled to the first HLR and the second HLR, wherein
17 the provisioning gateway is arranged and constructed to distribute, among the first HLR
18 and the second HLR, subscriber information for the plurality of communication
19 devices(Gallagher, col.5,lines 5-41).

20 As per claim 30, the multiple-protocol HLR of claim 25, wherein the first and
21 second network protocols comprise at least one of ANSI-41, GSM MAP, SIP, H.323,
22 AAA, and MIP(Lamb, page 14, lines 20-24).

1 As per claim 31, the multiple-protocol HLR of claim 25, wherein the mediation
2 device is further arranged and constructed to determine and store a protocol type and
3 an address for an infrastructure device(Lamb, page 6, lines 13-32).

4 As per claim 32, the multiple-protocol HLR of claim 31, wherein the infrastructure
5 device is a gateway mobile switching center(Lamb, page 1, lines 21-23).

6 As per claim 33, the multiple-protocol HLR of claim 31, wherein the mediation
7 device is further arranged and constructed to determine and store a protocol type and
8 an address for a communication device(Lamb, page 6, lines 13-32).

9 As per claim 34, the multiple-protocol HLR of claim 33, wherein the mediation
10 device is further arranged and constructed to determine and store a protocol type and
11 an address for a serving network for the communication device(Lamb, page 6, lines 13-
12 32).

13 As per claim 35, the multiple-protocol HLR of claim 25, wherein the first HLR is
14 further arranged and constructed to receive a query, regarding a communication device,
15 from an infrastructure device supporting the first network protocol, regardless of whether
16 the communication device's native mode is of the first network protocol(Lamb, page 6,
17 lines 13-32).

18 As per claim 36, the multiple-protocol HLR of claim 25, wherein the first HLR is
19 further arranged and constructed to detect whether a protocol type for an infrastructure
20 device, and when the protocol type for the infrastructure device is not the first network
21 protocol, to communicate through the mediation device to an HLR of the protocol type
22 for the infrastructure device(Gallagher, col.5, lines 43-67).

1 As per claim 37, the multiple-protocol HLR of claim 25, wherein the mediation
2 device is further arranged and constructed to store call forwarding information such that
3 processing for call forwarded communications takes place between the mediation
4 device and a terminating mobile switching center(Lamb, Fig.5c).

5 As per claim 38, the multiple-protocol HLR of claim 25, wherein any infrastructure
6 device is one of a terminating mobile switching center, a visited mobile switching center,
7 a gateway mobile switching center, a packet gateway, and an internet protocol
8 gateway(Lamb, Fig.5c).

9 As per claim 39, a system comprising:

10 a first infrastructure device arranged and constructed to generate at least
11 one query according to a first network protocol(Gallagher, col.5,lines 5-
12 40);

13 a second infrastructure device arranged and constructed to function
14 according to a second network protocol(Gallagher, col.6, lines 36-64);
15 a multiple-protocol home location register, operably coupled to the first
16 infrastructure device and the second infrastructure device, wherein the
17 multiple protocol home location register is arranged and constructed to
18 function according to the first network protocol and the second protocol,
19 such that a call request according to the first network protocol and related
20 to the at least one query is completed according to the second network
21 protocol(Lamb, page 6, lines 13-32).

1 As per claim 40, the system of claim 39, wherein the at least one query is
2 generated in response to a communication device request to communicate with a
3 serving network(Lamb, Fig.4c).

4 As per claim 41, the system of claim 40, wherein a profile for the communication
5 device is sent to the serving network and the profile is formatted according to the
6 serving network's protocol(Lamb, lines 13-32).

7 As per claim 42, the system of claim 40, wherein the serving network utilizes the
8 first network protocol(Lamb, lines 13-32).

9 As per claim 43, the system of claim 39, wherein the multiple-protocol home
10 location register is further arranged and constructed to provide call forwarding
11 functionality(Gallagher, col.1, lines 26-27).

12 Claim 45 is of the same scope as claim 29, therefore is rejected based on the
13 same rationale(see claim 29 rejection).

14 Claim 46 is of the same scope as claim 30, therefore is rejected based on the
15 same rationale(see claim 30 rejection).

16 As per claim 47, the system of claim 39, wherein the multiple-protocol home
17 location register is further arranged and constructed to determine and store a protocol
18 type and an address for the first infrastructure device(Gallagher, col.6, lines 23-35).

19 As per claim 48, the system of claim 39, wherein the first infrastructure device is
20 further arranged and constructed to receive a request from a communication device
21 regardless of whether the communication device's native mode is of the first network
22 protocol(Lamb, page 6, lines 13-32).

1 As per claim 49, the system of claim 39, wherein the multiple-protocol home
2 location register is further arranged and constructed to store call forwarding information
3 such that processing for call forwarded communications takes place between the
4 multiple-protocol home location register and the second infrastructure device(Gallagher,
5 col.1, lines 26-67).

6 Claim 50 is of the same scope as claim 38, therefore is rejected based on the
7 same rationale(see claim 38 rejection).

8 As per claim 51, the system of claim 39, wherein the first infrastructure device is
9 a gateway mobile switching center(Lamb, Fig.5c).

10 As per claim 52, the system of claim 39, wherein the second infrastructure device
11 is a terminating mobile switching center(Lamb, Fig.5c).

12 As per claim 53, a method comprising the steps of:

13 generating, by a first infrastructure device, a query according to a first
14 network protocol(Gallagher, col.5, lines 5-42);

15 sending the first network protocol query to a multiple-protocol home
16 location register functioning according to the first network protocol and a
17 second network protocol(Gallagher, col.5, lines 5-42, Figs.1,2,5a);;

18 processing, by the multiple-protocol home location register, the first
19 network protocol query, thereby generating a second network protocol
20 message(Lamb, page 6, lines 23-page 7, line 5);

1 sending the second network protocol message to a second infrastructure
2 device functioning according to the second network protocol(Lamb, page
3 6, lines 23-page 7, line 5).

4 As per claim 55, the method of claim 53, wherein the step of processing
5 comprises the step of converting a Location Request message to a Provide Roaming
6 Number message (Lamb, page 5, lines 28-30).

7 As per claim 56, the method of claim 53, wherein the step of processing
8 comprises the step of converting a Routing Request message to a Send Routing
9 Information message(Lamb, Fig.5a-5c).

10 Claim 57 is of the same scope as claim 29, therefore is rejected based on the
11 same rationale(see claim 29 rejection).

12 Claim 58 is of the same scope as claim 47, therefore is rejected based on the
13 same rationale(see claim 47 rejection).

14 As per claim 59, the method of claim 53, wherein the multiple-protocol home
15 location register receives a network request, regarding a communication device, from
16 the first infrastructure device, regardless of the communication device's native mode
17 protocol(Lamb, page 6, lines 13-32).

18 As per claim 60, the method of claim 53, further comprising the step of detecting
19 a protocol type for the second infrastructure device, and when the protocol type for the
20 second infrastructure device is not the first network protocol, processing the first
21 network protocol query according to the protocol type for the second infrastructure
22 device(Lamb, page 6, 13-32).

1 Claim 61 is of the same scope as claim 49, therefore is rejected based on the
2 same rationale(see claim 49 rejection).

3 Claim 68 is of the same scope as claim 38, therefore is rejected based on the
4 same rationale(see claim 38 rejection).

5 Claim 69 is of the same scope as claim 51, therefore is rejected based on the
6 same rationale(see claim 51 rejection).

7 Claim 70 is of the same scope as claim 52, therefore is rejected based on the
8 same rationale(see claim 52 rejection).

9
10 Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
11 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
12 al.(Gallagher) in further view of US Patent 6,504,839 issued to Valentine et
13 al.(Valentine).

14
15 Lamb in view of Gallagher teaches all the limitations of claim 39, however does
16 not explicitly teach as per claim 44, the system of claim 39, wherein the call request is a
17 call termination request.

18 Valentine teaches wherein the call request is a call termination
19 request(col.4,lines 66-67).

20 Therefore it would have been obvious at the time of the invention to modify the
21 system of Lamb in view of Gallagher to add wherein the call request is a call termination

1 request as taught by Valentine in order to route information from a packet-switched
2 network to a mobile device(col.2,lines 6-10).

3
4 Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
5 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
6 al.(Gallagher) in further view WO 00/74409 issued to Larson.

7
8 Lamb in view of Gallagher teaches all the limitations in claim 53, however, does
9 not explicitly teach as per claim 54, the method of claim 53, wherein the step of
10 processing comprises the step of translating the network request.

11 Larson teaches wherein the step of processing comprises the step of translating
12 the network request (page 2, lines 21-25).

13 Therefore it would have been obvious at the time of the invention to modify the
14 method as taught by Lamb in view of Gallagher to add wherein the step of processing
15 comprises the step of translating the network request as taught by Larson in order to
16 provide an integrated home location register and wireless office system(page, lines 6-9).

17
18 Claims 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over
19 WO 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
20 al.(Gallagher) in further view of US Patent 5,526,401 issued to Roach, Jr. et al.(Roach).

21

1 Lamb in view of Gallagher teaches all the limitations of claim 53, however does
2 not explicitly teach as per 62, the method of claim 53, further comprising the step of
3 issuing an instruction to a previous mobile switching center to delete a visited location
4 register for a communication device.

5 Roach teaches , further comprising the step of issuing an instruction to a
6 previous mobile switching center to delete a visited location register for a
7 communication device(col.16, lines 4-18)

8 Therefore it would have been obvious at the time of the invention to modify the
9 method of Lamb in view of Gallagher to add further comprising the step of issuing an
10 instruction to a previous mobile switching center to delete a visited location register for a
11 communication device as taught by Roach in order to provide a method of communicate
12 data via a cellular network(col.4, lines 29-35).

13 As per claim 63, the method of claim 53, wherein the step of processing
14 comprises the step of storing an identification of the second infrastructure device for a
15 call(Roach, col.6,lines 40-50).

16
17 Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
18 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
19 al.(Gallagher) in further view US Patent 5,845,215 issued to Henry et al.(Henry).

20
21 Lamb in view of Gallagher teaches all the limitations of claim 53 however does
22 not explicitly teach as per claim 64, the method of claim 53, wherein the step of

1 processing comprises the step of determining whether a communication device
2 supports multiple-mode operation.

3 Henry teaches wherein the step of processing comprises the step of determining
4 whether a communication device supports multiple-mode operation(col.12,lines 63-67).

5 Therefore it would have been obvious at the time of the invention to modify the
6 method of Lamb in view of Gallagher to add wherein the step of processing comprises
7 the step of determining whether a communication device supports multiple-mode
8 operation as taught by Henry in order to provide a method of supporting a plurality of
9 mobile station operation modes in a wireless communication system.

10
11 Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO
12 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
13 al.(Gallagher) in further view of US Patent 5,845,982 issued to Chambers et
14 al.(Chambers).

15
16 Lamb in view of Gallagher teaches all the limitations of claim 53 however does
17 not explicitly teaches as per claim 65, the method of claim 53, wherein the step of
18 processing comprises the step of converting a short messaging service message from a
19 first network protocol to a second network protocol.

20 Chambers teaches wherein the step of processing comprises the step of
21 converting a short messaging service message from a first network protocol to a second
22 network protocol(col.11, lines 59-60).

1 Therefore it would have been obvious at the time of the invention to modify the
2 method of Lamb in view of Gallagher to add wherein the step of processing comprises
3 the step of converting a short messaging service message from a first network protocol
4 to a second network protocol as taught by Chambers in order to provide a
5 communication system with a structural architecture that provides greater flexibility in
6 terms of MSISDN and IMSI management(col.3, lines 10-15).

7
8 Claims 66,67,71 are rejected under 35 U.S.C. 103(a) as being unpatentable over
9 WO 00/79827 issued to Lamb in view of US Patent 5,933,784 issued to Gallagher et
10 al.(Gallagher) in further view of US Patent 6,035,025 issued to Hanson.

11
12 Lamb in view of Gallagher teaches all the limitations of claim 53 and teaches
13 different types of protocol, however does not explicitly teach as per claim 67, the
14 method of claim 66, wherein the step of routing is based on at least one of a prefix plus
15 a called party number and a different number.

16 Hanson teaches wherein the step of routing is based on at least one of a prefix
17 plus a called party number and a different number(col.6, lines 15-17).

18 Therefore it would have been obvious at the time of the invention to modify the
19 method of Lamb in view of Gallagher to add wherein the step of routing is based on at
20 least one of a prefix plus a called party number and a different number as taught by
21 Hanson in order to have a system for bundled telecommunications(col.1, lines 16-18).

6 As per claim 71, the method of claim 53, wherein the step of processing
7 comprises the steps of routing a call, originating according to the first protocol, to a third
8 infrastructure device of the second protocol and handling the call according to normal
9 call processing procedures for the second protocol(Lamb, page 6, lines 13-32,Hanson
10 Fig.1, Gallagher, Fig.7).

11

13 Any inquiry concerning this communication or earlier communications from the
14 examiner should be directed to Backhean Tiv whose telephone number is (703) 305-
15 8879. The examiner can normally be reached on 9 A.M.-12 P.M. and 1 -6 P.M.
16 Monday-Friday.

17 If attempts to reach the examiner by telephone are unsuccessful, the examiner's
18 supervisor, Glenton B Burgess can be reached on (703) 305-4792. The fax phone
19 number for the organization where this application or proceeding is assigned is 703-
20 872-9306.

Art Unit: 2151

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9 BT

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11 Backhean Tiv
12 2151
13 7/1/04
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